

AN 1987:479048 CAPLUS
 DN 107:79048
 ED Entered STN: 05 Sep 1987
 TI **Epoxy resin compositions**
 IN Hino, Hirohisa; Fukui, Taro; Hashimoto, Shinji; Tsujimoto, Masaya
 PA Matsushita Electric Works, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08G059-50
 ICS H01L023-30
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 76

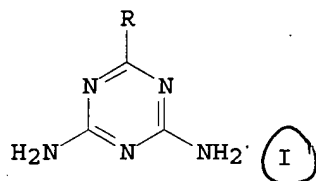
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61246227	A2	19861101	JP 1985-89414	19850424
PRAI JP 1985-89414		19850424		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 61246227	ICM	C08G059-50
	ICS	H01L023-30

GI



AB One-package liquid title compns. with fast curing rate, useful for potting semiconductor elements, contain dispersed powdered acetoguanamine or benzoguanamine (I) latent hardeners and fillers. Thus a mixture of 100 parts ELA 127 (bisphenol A epoxy resin) and 25 parts I containing 60% fused silica was kneaded under vacuum to prepare an one-component

epoxy resin composition Standard Al-patterned chip elements potted with the composition at 190° for 24 h, required 240 h to 50% failure in the thermal breakdown test (85°, 85% relative humidity, 15V d.c. bias), compared with 50 h for the elements potted with a similar **epoxy resin** composition containing 10 parts dicyandiamide instead of I.

ST one package **epoxy resin** potting; benzoguanamine latent hardener epoxy potting; semiconductor epoxy potting hardener; rapid curing epoxy potting

IT Potting compositions
 (epoxy resins containing guanamine latent hardeners and silica as, for semiconductors)

IT Semiconductor devices
 (potting compns. for, one-package **epoxy resins** containing guanamine latent hardeners as, fast-curing)

IT **Epoxy resins**, uses and miscellaneous
 RL: USES (Uses)

(bisphenol A-based, potting compns. based on, fast-curable one-package, containing guanamine derivative latent hardeners and fillers, for semiconductors)

IT Crosslinking agents
 (latent, guanamines as, **epoxy resins** containing,

fast-curable for potting semiconductor elements)

IT 91-76-9, Benzoguanamine 542-02-9, Acetoguanamine

RL: USES (Uses)

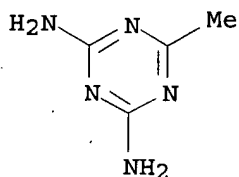
(latent hardener, one-package epoxy resins containing,
fast-curable for potting semiconductor elements)

IT 108916-47-8, ELA 127-benzoguanamine copolymer 109315-74-4
, ELA 127-acetoguanamine copolymer

RL: USES (Uses)

(potting with compns. based on, fast-cured one-package, of
semiconductor devices)

RN 542-02-9 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 1,3,5-Triazine-2,4-diamine, 6-methyl- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN s-Triazine, 2,4-diamino-6-methyl- (6CI, 8CI)
 OTHER NAMES:
 CN 2,4-Diamino-6-methyl-1,3,5-triazine
 CN 2,4-Diamino-6-methyl-s-triazine
 CN 2,6-Diamino-4-methyl-s-triazine
 CN 2-Methyl-4,6-diamino-s-triazine
 CN 6-Methyl-1,3,5-triazine-2,4-diamine
 CN Acetoguanamine
 CN ENT 50715
 CN NSC 257
 FS 3D CONCORD
 MF C4 H7 N5
 CI COM
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, PROMT, SPECINFO,
 TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

310 REFERENCES IN FILE CA (1907 TO DATE)
 51 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 311 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 22 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

DERWENT-ACC-NO: 1986-329492

DERWENT-WEEK: 198650

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TITLE: One pack epoxy! resin for sealing semiconductor elements
- contg. guanamine deriv. as curing agent

PATENT-ASSIGNEE: MATSUSHITA ELECTRIC WORKS LTD[MATW]

PRIORITY-DATA: 1985JP-0089414 (April 24, 1985)

PATENT-FAMILY:	PUB-DATE	LANGUAGE	PAGES	MAINIPC
PUB-NO				
JP 61246227 A	November 1, 1986	N/A	006	N/A

APPLICATION-DATA:	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
PUB-NO			
JP 61246227A	N/A	1985JP0089414	April 24, 1985

INT-CL (IPC): C08G059/50, H01L023/30

ABSTRACTED-PUB-NO: JP 61246227A

BASIC-ABSTRACT:

Compsn. consists of a liq. epoxy resin, an epoxy curative and a filler; the improvement comprises that a guanamine cpd. with curing potentiality of formula (I) is used as a curative and the curative is dispersed in the epoxy resin as it is powder together with the filler. In (I) R is Ph and/or CH₃. Pref., the epoxy resin contains under 20 ppm of Na(+) plus Cl(-) ions and under 0.1% of hydrolysable Cl. The content of the filler is pref. 3080 wt.% and the filler contains pref. under 200 ppmNa(+) and under 20 ppm Cl(-). The content of the curative is 10-30 PHR on the basis of the epoxy resin when R is Ph and 525 PHR when CH₃.

USE/ADVANTAGE - A rapid curing compsn. with excellent properties for sealing semiconductor and discrete circuit elements directly on a board, capable of storage and sealing with a dispenser.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: ONE PACK POLYEPOXIDE RESIN SEAL SEMICONDUCTOR ELEMENT CONTAIN
GUANAMINE DERIVATIVE CURE AGENT

DERWENT-CLASS: A21 A85 E13 L03 U11

CPI-CODES: A05-A01B1; A08-D03; A08-R01; A12-E04; A12-E07; A12-E07C; E07-D13B;
L04-C20A;

EPI-CODES: U11-A07;

CHEMICAL-CODES:

Chemical Indexing M3 *01*

Fragmentation Code

F012 F014 F016 F580 G010 G100 H1 H01 H122 L910
L999 M113 M210 M211 M240 M280 M281 M320 M413 M510
M521 M530 M531 M540 M781 M903 Q132 Q454 R036

Ring Index

00212

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1694U; 1694U

PAT-NO: JP361246227A
DOCUMENT-IDENTIFIER: JP 61246227 A
TITLE: EPOXY RESIN COMPOSITION
PUBN-DATE: November 1, 1986

INVENTOR-INFORMATION:

NAME
HINO, HIROHISA
FUKUI, TARO
HASHIMOTO, SHINJI
TSUJIMOTO, MASAYA

ASSIGNEE-INFORMATION:

NAME	COUNTRY
MATSUSHITA ELECTRIC WORKS LTD	N/A

APPL-NO: JP60089414

APPL-DATE: April 24, 1985

INT-CL (IPC): C08G059/50, H01L023/30

US-CL-CURRENT: 528/118

ABSTRACT:

PURPOSE: The titled composition which has properties necessary for sealing, semiconductor elements, can be stored in the form of a onecomponent composition, can be applied in sealing with a dispenser and is excellent in rapid curability, comprising a liquid epoxy resin, a filler and a specified curing agent.

CONSTITUTION: A liquid epoxy resin (A) having Na<SP>+</SP> and Cl<SP></SP> ion contents ≤ 20 ppm, respectively, and a hydrolyzable chlorine content ≤ 1 ppm is mixed with 30 \sim 80wt% filler (B) (e.g., alumina) of a Na<SP>+</SP> ion content ≤ 200 ppm and a Cl<SP></SP> ion content ≤ 20 ppm and 5 \sim 25 PHR powdered guanamine compound (C) of formula I (wherein R is formula II or CH<SB>3</SB>) as a curing agent having latent curability. Component C in the mixture is dispersed in the form of a powder.

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